Montana Department of Natural Resources and Conservation
Water Resources Division
Water Rights Bureau

# ENVIRONMENTAL ASSESSMENT
**For Routine Actions with Limited Environmental Impact**

## Part I. Proposed Action Description

1. Applicant/Contact name and address:

   Michael P. Keator
   PO Box 594
   West Yellowstone, MT 59758

2. Type of action: Yellowstone Controlled Groundwater Area Permit No. 41F 30105911. The Applicant has drilled a well and proposes to appropriate 15 gallons per minute (GPM) up to 1.45 acre-feet (AF) per year of water. The well is located within the Yellowstone Controlled Groundwater Area (YCGA).

3. Water source name: Groundwater. The well is located on private property approximately 635 feet east of the East Fork of Denny Creek, a tributary of Denny Creek, which is a tributary to the South Fork of the Madison River.

4. Location affected by project: NWNWNWSE, Section 21, T13 S, R04 E, Gallatin County. This well is located on private property in a rural neighborhood development. The physical property address is 257 Bear Road, West Yellowstone, MT 59758. (See Figure 1 for a map on the next page.)


Figure 1: Map of location affected by project.

5. Narrative summary of the proposed project, purpose, action to be taken, and benefits: The Applicant proposes to pump 15 GPM not to exceed 1.45 AF per year of water for domestic and lawn and garden purposes. Domestic use totals 1 AF year-round, and lawn and garden use totals .43 AF for use on .18 acres between May 1 and October 1 of each year. The water from this well measured 42°F at the wellhead and had a specific conductance of 295 micromhos.

The National Park Service has received notification of this application. No response was received.

6. Agencies consulted during preparation of the Environmental Assessment:

- Montana Department of Fish, Wildlife & Parks (DFWP) – Montana Fisheries Information System (MFISH)
  - http://fwp.mt.gov/fishing/mFish/
- Montana Department of Environmental Quality (DEQ) – Clean Water Act Information Center (CWAIC)
  - http://deq.mt.gov/wqinfo/CWAIC/default.mcpx
- Montana National Heritage Program (MTNHP) – Species of Concern:
  - http://mtnhp.org/SpeciesOfConcern
- U.S. Fish & Wildlife Service (USFWS) – National Wetlands Inventory Wetlands Mapper
  - http://www.fws.gov/wetlands/Data/Mapper.html
- Natural Resource Conservation Service (NRCS) – Web Soil Survey (WSS)
  - http://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm

## Part II. Environmental Review

### 1. Environmental Impact Checklist:

## PHYSICAL ENVIRONMENT

**WATER QUANTITY, QUALITY AND DISTRIBUTION**

***Water quantity*** *- Assess whether the source of supply is identified as a chronically or periodically dewatered stream by DFWP. Assess whether the proposed use will worsen the already dewatered condition.*

*Determination*: No significant impact.

The source of water is groundwater, which is not listed by DFWP. The nearest surface water is the East Fork of Denny Creek, a tributary to Denny Creek, which is a tributary to the South Fork of the Madison River, which is located approximately 635 ft to the west. As determined by a search of MFISH conducted on July 11, 2016, DFWP does not have any data for the East Fork of Denny Creek. DFWP does not list Denny Creek or the South Fork of the Madison River as chronically or periodically dewatered. The Madison River is impounded by Hebgen Dam to form Hebgen Lake. The Madison River's flow is controlled by the dam, and the Madison is not listed as chronically or periodically dewatered. The well's proposed flow rate of 15 GPM and annual volumetric usage of 1.45 AF will not have a significant impact on nearby surface water flow or water users.

***Water quality*** *- Assess whether the stream is listed as water quality impaired or threatened by DEQ, and whether the proposed project will affect water quality.*

*Determination:* No impact.

The source of water is groundwater, which is not listed by the Montana Department of Environmental Quality (DEQ). The well is unlikely to affect adjacent surface water quality, as Madison Drilling and Pump Supply, a licensed driller (license number WWC-557), has constructed the well in accordance with the rules of the Board of Water Well Contractors. Furthermore, the well is located approximately 635 ft from the East Fork of Denny Creek. According to a search of the CWAIC website conducted on July 11, 2016, DEQ has not assessed Denny Creek for water quality data. The nearest reach of the South Fork of the Madison River, from the headwaters to Hebgen Lake, has been assessed by DEQ as fully supporting drinking water. This well is unlikely to impact the surface water quality.

***Groundwater*** **-** *Assess if the proposed project impacts ground water quality or supply. If this is a groundwater appropriation, assess if it could impact adjacent surface water flows.*

*Determination*: No significant impact.

The source of water is groundwater. Groundwater quality is not likely to be affected by the proposed well, as Madison Drilling and Pump Supply, a licensed driller, has constructed the well in accordance with the rules of the Board of Water Well Contractors.

The well is located around 635 ft from nearby surface water in the East Fork of Denny Creek. The proposed 15 GPM and 1.45 AF per year are not likely to have a significant impact on surface water flows, nor are they likely to have a significant impact on nearby water right owners. Water use will be measured with a meter supplied by DNRC.

The U.S. National Park Service has been notified of this application pursuant to the State of Montana/U.S. National Park Service Compact, Article II, Section B.2.b.ii.3.(b).

**DIVERSION WORKS** - *Assess whether the means of diversion, construction and operation of the appropriation works of the proposed project will impact any of the following: channel impacts, flow modifications, barriers, riparian areas, dams, well construction.*

*Determination*: No significant impact.

Consistent with applicable laws and locally accepted practices, water will be diverted using a well with a pump, and use will be measured using a water meter supplied by the Department. Madison Drilling and Pump Supply, a licensed driller, has constructed the well in accordance with rules of the Board of Water Well Contractors. No significant impacts to existing resources have been identified.

**UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES**

***Endangered and threatened species*** **-** *Assess whether the proposed project will impact any threatened or endangered fish, wildlife, plants or aquatic species or any "species of special concern," or create a barrier to the migration or movement of fish or wildlife. For groundwater, assess whether the proposed project, including impacts on adjacent surface flows, would impact any threatened or endangered species or "species of special concern."*

*Determination*: No significant impact.

A search of the MTNHO Species of Concern website conducted on July 11, 2016, returned the following results:

- 11 animal Species of Concern: Wolverine, Little Brown Myotis, Grizzly Bear, Hoary Bat, Brown Creeper, Cassin's Finch, Clark's Nutcracker, Green-Tailed Towhee, Brewer's Sparrow, Western Toad, Westslope Cutthroat Trout.
- 0 animal Potential Species of Concern.
- 1 animal Special Status Specie: Bald Eagle.
- 3 plant Species of Concern: Slender Indian Paintbrush, Slender Thelypody, Dwarf Onion.
- 0 plant Potential Species of Concern.
- 0 plant Special Status Species.

As this proposed application is to divert water from a well located on private property within a rural neighborhood, no significant impacts will occur to threatened, endangered, or special concern species. The pumping of groundwater will not decrease surface water flows to significantly impact any of these species.

***Wetlands*** **-** *Consult and assess whether the apparent wetland is a functional wetland (according to COE definitions), and whether the wetland resource would be impacted.*

*Determination*: No significant impact.

According to a July 11, 2016, search of the USFWS Wetlands Mapper, an 8.70 acre forested/shrub wetland exists approximately 635 ft from the well and pump diversion works for this project. The proposed 15 GPM and 1.45 AF per year are not likely to have a significant impact on this wetland.

***Ponds*** **-** *For ponds, consult and assess whether existing wildlife, waterfowl, or fisheries resources would be impacted.*

*Determination*: Not applicable.

No ponds are involved in the project.

**GEOLOGY/SOIL QUALITY, STABILITY AND MOISTURE** - *Assess whether there will be degradation of soil quality, alteration of soil stability, or moisture content. Assess whether the soils are heavy in salts that could cause saline seep.*

*Determination*: No significant impact.

This well has been constructed by Madison Drilling and Pump Supply, a licensed driller, in accordance with rules of the Board of Water Well Contractors, so there should not be significant impacts on nearby soil quality. Use of water will occur in a manner consistent with locally

accepted, historic practices and will not significantly impact soil quality. A July 11, 2016, search of the NRCS WSS site did not identify any saline seeps in the area.

**VEGETATION COVER, QUANTITY AND QUALITY/NOXIOUS WEEDS** - *Assess impacts to existing vegetative cover. Assess whether the proposed project would result in the establishment or spread of noxious weeds.*

*Determination*: No significant impact.

This well has been constructed by Potts Madison Drilling and Pump Supply, a licensed driller, in accordance with rules of the Board of Water Well Contractors, so there should not be significant impacts on nearby vegetative cover. A small area was disturbed by drilling the well, but this should have no significant impact on the surrounding area's vegetative cover and neither should it allow the establishment of noxious weeds. Under Montana law, owners are responsible for noxious weed control on their property.

**AIR QUALITY** - *Assess whether there will be a deterioration of air quality or adverse effects on vegetation due to increased air pollutants.*

*Determination*: No impact.

No deterioration of air quality will result from the drilling of this well or diversion of water from it.

**HISTORICAL AND ARCHEOLOGICAL SITES** - *Assess whether there will be degradation of unique archeological or historical sites in the vicinity of the proposed project if it is on State or Federal Lands. If it is not on State or Federal Lands simply state NA-project not located on State or Federal Lands.*

*Determination*: Not applicable.

The project is not located on State or Federal Lands. Furthermore, the Applicant made no mention of significant historical or archeological sites on the property.

**DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AND ENERGY** - *Assess any other impacts on environmental resources of land, water and energy not already addressed.*

*Determination*: No significant impact.

No other demands on environmental resources of land, water, and energy have been identified.

## HUMAN ENVIRONMENT

**LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS** - *Assess whether the proposed project is inconsistent with any locally adopted environmental plans and goals.*

*Determination*: No significant impact.

Drilling wells for water supply and using water for domestic and lawn and garden purposes are locally accepted practices within the state of Montana and the Hebgen Lake area.

**ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES** - *Assess whether the proposed project will impact access to or the quality of recreational and wilderness activities.*

*Determination*: No impact.

There are significant recreational and wilderness activities in the area, but the proposed project is located entirely on private property in a rural neighborhood development and will not impact access to or the quality of recreational and wilderness activities.

**HUMAN HEALTH** - *Assess whether the proposed project impacts on human health.*

*Determination*: No significant impact.

The water will be used to supply one home for domestic purposes and .18 acres of light lawn and garden irrigation. A March 2011 DEQ Fact Sheet entitled "Individual Drinking Water Wells – Water Quality Monitoring & Treatment" notes that water quality from individual drinking water wells is monitored only by the owner and is "generally not subject to any drinking water standards." The Applicant maintains sole responsibility for testing and treatment of water for any and all domestic purposes. The use of water for lawn and garden irrigation will not impact human health.

**PRIVATE PROPERTY** - *Assess whether there are any government regulatory impacts on private property rights.*
*Yes___ No_**X**_ If yes, analyze any alternatives considered that could reduce, minimize, or eliminate the regulation of private property rights.*

*Determination*: The project does not impact government regulations on private property rights.

**OTHER HUMAN ENVIRONMENTAL ISSUES** - *For routine actions of limited environmental impact, the following may be addressed in a checklist fashion.*

*Impacts on:*

(a) *Cultural uniqueness and diversity?* No impacts identified.

(b) *Local and state tax base and tax revenues?* No significant impacts identified.

(c) *Existing land uses?* No significant impacts identified.

(d) *Quantity and distribution of employment?* No impacts identified.

(e) *Distribution and density of population and housing?* No significant impacts identified.

(f) *Demands for government services?* No significant impacts identified.

(g) *Industrial and commercial activity?* No impacts identified.

(h) *Utilities?* No impacts identified.

(i) *Transportation?* No impacts identified.

(j) *Safety?* No impacts identified.

(k) *Other appropriate social and economic circumstances?* No impacts identified.

**2. *Secondary and cumulative impacts on the physical environment and human population:***

Secondary Impacts: No secondary impacts have been identified.

Cumulative Impacts: No cumulative impacts have been identified.

3. ***Describe any mitigation/stipulation measures:*** Pursuant to the State of Montana/National Park Service Compact, the Applicant is required to install a totalizing water use meter, which is provided by the Department. The Applicant will report this volume to the Montana Bureau of Mines and Geology annually.

**4. *Description and analysis of reasonable alternatives to the proposed action, including the no action alternative, if an alternative is reasonably available and prudent to consider:*** If the Applicant is not allowed to divert water from the existing well, they will not be able to supply their home with water for domestic purposes. Since the property is located in a rural region, they cannot connect to a municipal system, but they may be able to haul water in. The no-action alternative may leave their house without domestic water, but the no-action alternative for the lawn and garden use would be to not water their lawn.

## *PART III. Conclusion*

***1.*** ***Preferred Alternative:*** The preferred alternative is to obtain a water right permit to use the drilled well.

***2*** ***Comments and Responses:*** None at this time.

**4.** ***Finding:***

*Yes___ No_**X**_ Based on the significance criteria evaluated in this EA, is an EIS required?*

*If an EIS is not required, explain <u>why</u> the EA is the appropriate level of analysis for this proposed action:* The EA is the appropriate level of analysis because the proposed project is to drill a small groundwater well in the YCGA for domestic and lawn and garden uses, which is a locally accepted practice, and no significant adverse effects are anticipated. None of the identified impacts for any of the alternatives is significant as defined in ARM 36.2.524.

*Name of person(s) responsible for preparation of EA:*

*Name:* Brant Lumpkin
*Title:* Water Resource Specialist
*Date*: July 11, 2016